TRANSMITTAL OF APPEAL BRIEF (Small Entity)

Docket No. KNA-0012

Re Application Of: **J. Michael Weaver et al.**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
10/005,457	11/02/2001	Louis B. Tran	23413	3721	9579

Invention: **PACKAGING MACHINE AND METHOD**

COMMISSIONER FOR PATENTS:

Transmitted herewith in ~~duplicate~~ is the Appeal Brief in this application, with respect to the Notice of Appeal filed on:

August 9, 2004

☐ Applicant claims small entity status. See 37 CFR 1.27

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Lisa Bongiovi

Signature

Dated: **October 12, 2004**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant:	J. MICHAEL WEAVER ET AL.	) Group Art Unit: 3721
Serial No.	10/005,457	) Examiner: L. Tran
Filed:	November 2, 2001	)
For:	PACKAGING MACHINE AND METHOD	)

APPEAL BRIEF

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1. THE REAL PARTY IN INTEREST

The real party in interest in this appeal is Standard Knapp Inc. Ownership by Standard Knapp Inc. is established by assignment document recorded for this application on October 7, 2002 on Reel 013369 Frame 0663.

2. RELATED APPEALS AND INTERFERENCES

Appellant knows of no related patent applications or patents under any appeal or interference proceeding.

3. STATUS OF CLAIMS

Currently, claims 1-2, 4-6, 8-11, 13-19, 21, 23-26, and 28-32 are rejected and claims 3, 7, 20, and 22 are withdrawn. Claims 12, 27, and 33-73 are canceled. Claims 1-2, 4-6, 8-11, 13-19, 21, 23-26, and 28-32 are being appealed.

4. STATUS OF AMENDMENTS

There have been no amendments that have been made subsequent to receipt of the final office action.

5. SUMMARY OF INVENTION

In order to understand the invention, some background information may be helpful. Automated packaging devices are often used in high volume production facilities to prepare

products for sale and shipment. One common automated packing device is a packaging machine, which divides up the product and drops it into a box or case. The packaging machine typically consist of five sections; a product infeed section, a case feed section, a lift table section, a grid table section and an operator interface section. Specification, page 1, paragraph 2.

The product infeed section of the packaging machine includes a conveyor belt that transfers the product from an upstream process such as filling or labeling, in a serial fashion. The conveyor belt urges the product into grid lanes that align the product into a plurality of rows. Distribution of the product between the grid lanes is accomplished using the force of the conveyor belt and the force created between the individual product items to distribute the product between fixed, stainless steel lane guides. Thus, there is a certain amount of "line pressure" that is required in order for the product to be pushed into the grid section. As the product passes between the lane guides, it rests on support strips positioned below the product. At the end of each grid lane is a separation bar, which stops the first product to enter the grid lane. The product is monitored using electronic sensors as it is fed into a grid lane. When the grid lane is filled with the desired amount of product, a brake is applied to stop the serial flow of product in the conveyor belt and, thereby, prevent further product from entering the lane guides. Specification, page 1, paragraph 3.

There are two independent claims (claims 1 and 18) in this application. Referring to Figures 1, 2A, 4-8, and 12, the first independent claim is directed to a packaging machine 20 for packaging a product 170. The packaging machine includes a plurality of lane guides 102, 104, 106, 108, 110, and 112 that are spaced apart to form a plurality of lanes 80, 82, 84, 86, and 88. A movable conveyor 56, which extends under one of the plurality of lanes, is positioned to deliver the product to each of the plurality of lanes 80, 82, 84, 86, and 88. A conveyor shifting assembly 60 is adapted to move the movable conveyor 56 from one of the plurality of lanes to an adjacent one of the plurality of lanes. A support device 120, 122, 124, 126, and 128 (or 160, which is directed to the withdrawn claims, see Figure 2D) is located at the plurality of lanes 80, 82, 84, 86, and 88 and each support device 120, 122, 124, 126, and 128 is adapted to hold the product 170. There is also a shifting assembly 132 in operable communication with the plurality of lane guides 102, 104, 106, 108, 110, and 112. Specification, pages 7-8, paragraphs 33-37. The second independent claim is similar to the first independent claim, but specifically claims that the lanes

are an appropriate number of lanes to file a case and a spare lane. Specification, page 11, paragraphs 48-49.

In addition, there are three dependent claims (claims 2, 5, and 19) that have additional patentable features. Two of the dependent claims (claims 2 and 19) further provide that the support device includes a support strip 120, 122, 124, 126, and 128, which is located at each of the plurality of lanes 80, 82, 84, 86, and 88 and is located beneath the movable conveyor 56. The support strip 120, 122, 124, 126, and 128 supports the product 170 when the movable conveyor 56 is moved from beneath one of the plurality of lanes. The other dependent claim (claim 5) includes the addition of a spare lane. Specification, page 8, paragraph 35.

During operation, the conveyor 56 continuously moves the product 170 at a constant speed into the lane 82 and a first sensor 92 counts the product 170. The products 170 are each spaced at a distance equal to a gap 172. When the appropriate number of products 170 (i.e. four products 170) has entered the lane 2, the motor 62 (see Figure 2A) energizes, shifting the end section 58 of the conveyor 56 from under the lane 82 to the lane 84. As the end section 58 is shifted, the product 170 in lane 86 contacts the lane guide 110. Since the lane guide is stationary at this point, the product 170 in lane 88 slides off the conveyor 56 and onto the support strip 122. Specification, pages 11-12, paragraph 49.

The speed of the second conveyor 56 is adjusted so that the total time for the end section 58 of the movable conveyor 56 to shift from one of the lane to an adjacent lane is less than the time it takes for conveyor 56 to move the product 170 the distance equal to the gap 172. This allows the lanes 88, 86, 84, 82, and 80 to be filled continuously using a constant conveyor speed and without the need for a brake used by prior art packaging machines. The elimination of the brake also eliminates the problems associated with line pressure. In addition, it will be recognized that the timing of the movement of the end section 58 from one lane 88 to the adjacent lane will maintain the gap 172 between the products 170 within lane 86. In other words, the timing of the movement of end section 58 will eliminate wind-up within the lanes. Also, the spare lane allows for the product to continue to fill a lane when the other lanes empty the product 170 from the grid section 26 to the case section 28. Specification, page 11, paragraph 47.

6. ISSUES

Claims 1-2, 4-5, 9, 11, 13-19, 24, 26, and 28-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Walter (U.S. 3,057,136) ("Walter") in view of Greenwell (U.S. 3,996,723) ("Greenwell"). Claims 6, 8, 10, 21, 23, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Walter in view of Greenwell and further in view of Ebira (U.S. 5, 174,430) ("Ebira").

7. ARGUMENT

A. Rejection under 35 U.S.C. § 103(a) as being unpatentable over Walter in view of Greenwell.

1. Claims 1, 4, 9, 11, and 13-17

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; and that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

Claims 1, 4, 9, 11, and 13-17 include the following elements: "a movable conveyor that is positioned to deliver the product to each of said plurality of lanes, said movable conveyor extends under one of said plurality of lanes; a conveyor shifting assembly that is adapted to move said movable conveyor from one of said plurality of lanes to an adjacent one of said plurality of lanes." Walter and Greenwell do not teach or suggest those elements.

The Examiner asserts that Walter teaches all of the elements of the claims, except that Greenwell teaches the use of a movable conveyor 11 with a shifting assembly adapted to move the movable conveyor from one lane to an adjacent lane for the purpose of rapidly distributing product for packaging. The Examiner points to column 1, line 30 and column 2, lines 43-50 in Greenwell. The Examiner then asserts that it would have been obvious to one of ordinary skill in the art to provide Walter with a conveyor shifting assembly in order to distribute product to a plurality of lanes for efficiency. Appellant respectfully traverses.

First, Appellant disagrees with the Examiner's assertion that Walter teaches "said

movable conveyor extends under one of said plurality of lanes." The claim requires there to be a plurality of lanes and that the conveyor extends under one of the lanes. Appellant has not claimed "a lane" or "at least one lane," which may suggest that the movably conveyor could extend under more than one lane. Rather, Appellant has claimed "one" of the plurality of lanes. Walter teaches that the movable conveyor extends under all of the lanes, not just one. Moreover, when reading that element with the additional element in the claim "a conveyor shifting assembly that is adapted to move said movable conveyor from one of said plurality of lanes to an adjacent one of said plurality of lanes," the language "said movable conveyor extends under one of said plurality of lanes" can only be interpreted as being that the movable conveyor extends under only one lane because the conveyor then shifts to an adjacent lane.

In addition, Greenwell does not teach or suggest that "said movable conveyor extends under one of said plurality of lanes." In Greenwell, the conveyor extends from the feeding conveyor 13 to the accumulator 17. Thus, the movable conveyor 11 in Greenwell does not extend under one of a plurality of lanes.

The fact that the conveyor extends under one of the plurality lanes is a patentable feature. In paragraph 60 of the application, the specification explains, as follows:

> "The packaging machine 20 allows the line pressure to be controlled so that there may be some line pressure, if there is no spacing mechanism and no spare lane. In addition, the packaging machine 20 may be utilized with no line pressure, if the spacing mechanism is employed and/or the spare lane is employed. The packaging machine 20 allows the product 170 to be filled continuously using a constant conveyor speed and without the need for the brake used by prior art packaging machines. In addition, the packaging machine 20 may maintain the predetermined gap 172 between the products 170 within each lane, which will eliminate the wind-up within the lanes. Because line pressure and wind-up can be controlled so that line pressure and wind-up are minimized or eliminated, the drawbacks and deficiencies caused by line pressure and wind-up have also been eliminated. For example, the packaging machine 20 allows the packaging of irregularly shaped product container while eliminating the interlocking, tipping or mispackaging or the product caused by line pressure and wind-up. Additional benefits are also gained by continuously maintaining the feed sequence of product, including the packaging of variety packs and first-in, first-out basis packaging."

These benefits are attained by having the movable conveyor located under only one line because such a feature allows for constant feeding occurring at the machine. When all of the

lanes feed the product to the grid section, as provided in Walter, there must be line pressure and wind up (or a brake must be used) because the product must be stopped while the product drops through the grid section. Moreover, because the conveyor does not extend under the lane into the grid section, Walter must have line pressure in order to push the product onto the support strips at the grid section. Thus, Walter cannot operate without line pressure.

Accordingly, neither Walter nor Greenwell teach or suggest all of the elements of the claims.

Additionally, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992); MPEP § 2143.01. In this case, there is no motivation to combine Walter with Greenwell, and in fact, Walter teaches away from being combined with Greenwell. Greenwell teaches about moving product down a conveyor 11 to a compartment 81, 82, etc. However, one skilled in the art would not combine that teaching with Walter. Walter teaches that all lanes are provided with the product at the same time and that the product advances into each of the lanes by line pressure between the stationary guide plates 12, 12. The product slides forward between the guide plates 16, 16 along the support rails 18. See column 1, line 69 to column 2, line 13. Thus, the infeed section in Walter operates through the use of line pressure or wind up since the product is pushed onto support rails 18. In addition, the method taught by Walter is efficient since all lanes are filled at the same time. While the Examiner asserts that one skilled in the art would be motivated to combine Greenwell with Walter for rapid product distribution, Greenwell's teaching would actually appear to provide for a much slower product distribution because only one lane is filled at a time. Moreover, one skilled in art would not combine Greenwell with Walter. In Walter, because the conveyor extends under all lanes, there is no reason to shift the conveyor from lane to lane.

As taught by Appellant, the reason for the invention is to provide a packaging machine with an infeed section that is able to deliver product without the problems associated with line pressure or wind-up. Specification, page 3, paragraph 10. As explained in the background

section line pressure and wind-up can cause problems in the packaging lanes, especially if the product is made of glass or is oval shape.

Thus, while the invention does provide for rapid product distribution, this is not the motivation for providing a single lane distribution. Instead, the single lane distribution is used to deliver the product into the grid section so that line pressure and wind up are not necessary. Greenwell does not teach or suggest such motivation. Moreover, since Walter provides product to all lanes at the same time, and none of the references teach about the problems associated with line pressure and wind up, one skilled in the art would not think that the filling of one lane at a time would provide any benefit, and would not seem to provide more rapid product distribution.

Thus, Appellant submits that claims 1, 4, 9, 11, and 13-17 are patentable over Walter and Greenwell and the Examiner's rejection is improper.

2. Claims 18, 24, 26, and 28-32

Claims 18, 24, 26, and 28-32 include the following elements: "a movable conveyor that is positioned to deliver the product to each of said plurality of lanes, said movable conveyor extends under one of said plurality of lanes; a conveyor shifting assembly that is adapted to move said movable conveyor from one of said plurality of lanes to an adjacent one of said plurality of lanes." These are the same elements that were discussed above under subheading 1. Thus, for the reasons discussed above, claims 18, 24, 26, and 28-32 are patentable and the Examiner's rejection is improper.

In addition, claims 18, 24, 26, and 28-32 also include the following element: "said plurality of lanes includes an appropriate number of lanes to fill a case and a spare lane." While Walter may teach a plurality of lanes that includes an appropriate number of lanes to fill a case, Walter does not teach or suggest "a spare lane." Walter teaches that there is an appropriate number of lanes and there would be no need for a spare lane in Walter. Because all of the lanes are filled at the same time and then a brake is applied and the product is dropped to a case below the grid section, there is not need in Walter for a spare lane. The Examiner has not pointed to any support in Walter for the teaching or suggestion of a spare lane. Moreover, Greenwell does not teach or suggest a spare lane.

Accordingly, claims 18, 24, 26, and 28-32 are patentable over Walter and Greenwell and

the Examiner's rejection is improper.

3. Claims 2 and 19

Claims 2 and 19 include all of the elements of claims 1 and 18, respectively. Thus, for the reasons discussed above under subheading 1 and 2, claims 2 and 19 are patentable and the Examiner's rejection is improper.

In addition, claims 2 and 19 also include the following element: "wherein said support device includes a support strip, said support strip being located at each of said plurality of lanes and is located beneath said movable conveyor, said support strip supports the product when said movable conveyor is moved from beneath one of said plurality of lanes. Walter and Greenwell do not teach or suggest this element.

While Walter does teach about a support strip 18, Walter does not teach that the conveyor is located beneath the movable conveyor and that the support strip supports the product when the movable conveyor is moved from beneath one of the plurality of lanes. Instead, Walter teaches that the support strip is located next to the conveyor. In Greenwell, there is no support strip and thus, there is no teaching that the support strip is located at each of the plurality of lanes and is located beneath the movable conveyor.

In the Advisory Action, the Examiner asserts that there is no limitation in the claims that requires a support strip to be directly under a conveyor. However, as explained above, claims 2 and 19 specifically claim that subject matter. Accordingly, for at least the foregoing reasons, claims 2 and 19 are patentable over Walter and Greenwell and the Examiner's rejection is improper.

4. Claim 5

Claim 5 includes all of the elements of claims 1. Thus, for the reasons discussed above under subheading 1, claim 5 is patentable and the Examiner's rejection is improper.

In addition, claim 5 includes the following element: "wherein said plurality of lanes includes a spare lane." Walter teaches that there is an appropriate number of lanes and there would be no need for a spare lane in Walter. Because all of the lanes are filled at the same time and then a brake is applied and the product is dropped to a case below the grid section, there is not need in Walter for a spare lane. The Examiner has not pointed to any support in Walter for the teaching or suggestion

of a spare lane. Moreover, Greenwell does not teach or suggest a spare lane.

Accordingly, claim 5 is patentable over Walter and Greenwell and the Examiner's rejection is improper.

B. Rejection under 35 U.S.C. § 103(a) as being unpatentable over Walter in view of Greenwell and further in view of Ebira.

1. Claims 6, 8, 10, 21, 23, and 25

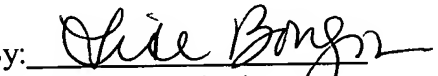
Claims 6, 8, and 10 include all of the elements of claim 1, and claims 21, 23, and 25 include all of the elements of claim 18. Thus, for the reasons discussed above under subheading 1 and 2, Walter and Greenwell do not teach or suggest the elements of claims 6, 8, 10, 21, 23, and 25. Moreover, Ebira does not remedy the deficiency of Walter and Greenwell. Accordingly, claims 6, 8, 10, 21, 23, and 25 are patentable and the Examiner's rejection is improper.

C. Conclusion

For the reasons cited above, Appellant respectfully submits that this application is in condition for allowance and request reversal of the outstanding rejections and early allowance of this application. If there are any additional charges with respect to this Appeal or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Appellant's attorneys.

Respectfully submitted,

CANTOR COLBURN LLP

By: 

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8. APPENDIX A

Appealed Claims

1. A packaging machine for packaging a product, the packaging machine comprising:

a plurality of lane guides, said plurality of lane guides being spaced apart to form a plurality of lanes;

a movable conveyor that is positioned to deliver the product to each of said plurality of lanes, said movable conveyor extends under one of said plurality of lanes;

a conveyor shifting assembly that is adapted to move said movable conveyor from one of said plurality of lanes to an adjacent one of said plurality of lanes;

a support device located at said plurality of lanes, each support device adapted to hold the product; and

a shifting assembly in operable communication with said plurality of lane guides.

2. The packaging machine of Claim 1, wherein said support device includes a support strip, said support strip being located at each of said plurality of lanes and is located beneath said movable conveyor, said support strip supports the product when said movable conveyor is moved from beneath one of said plurality of lanes.

4. The packaging machine of Claim 1, wherein said plurality of lanes includes an appropriate number of lanes to fill a case.

5. The packaging machine of Claim 4, wherein said plurality of lanes includes a spare lane.

6. The packaging machine of Claim 1, further comprising a spacing mechanism disposed at said moveable conveyer.

8. The packaging machine of Claim 6, wherein said spacing mechanism includes a side belt assembly.

9. The packaging machine of Claim 1, wherein said shifting assembly is adapted to move said lane guides from a first position to a second position, said first and second positions being spaced apart a distance substantially equal to a width of one of said plurality of lanes.

10. The packaging machine of Claim 1, further comprising a flex guide mounted to said movable conveyor, said flex guide being adapted to direct the product into said plurality of lanes.

11. The packaging machine of Claim 1, further comprising a sensor mounted adjacent to said plurality of lanes.

13. The packaging machine of Claim 1, further comprising a case feed assembly located beneath said plurality of lanes.

14. The packaging machine of Claim 13, wherein said case feed assembly is configured to position a case beneath said lane guides, the case being sized to receive the product delivered into said plurality of lanes.

15. The packaging machine of Claim 14, wherein said case feed assembly includes a feed conveyor, said feed conveyor is adapted to deliver the case beneath said plurality of lanes.

16. The packaging machine of Claim 15, wherein said feed conveyor is adapted to remove the case from beneath said plurality of lanes.

17. The packaging machine of Claim 1, further comprising a controller.

18. A packaging machine for packaging a product, the packaging machine comprising:

a plurality of lane guides, said plurality of lane guides being spaced apart to form a plurality of lanes, said plurality of lanes includes an appropriate number of lanes to fill a case and a spare lane;

a moveable conveyor that is positioned to deliver the product to each of said plurality of lanes, said movable conveyor extends under one of said plurality of lanes;

a conveyor shifting assembly, said conveyor shifting assembly that is adapted to move said movable conveyor from one of said plurality of lanes to an adjacent one of said plurality of lanes.

a support device located at said plurality of lanes, said support device adapted to hold the product; and

a shifting assembly in operable communication with said plurality of lane guides.

19. The packaging machine of Claim 18, wherein said support device includes a support strip, said support strip being located at each of said plurality of lanes and is located beneath said movable conveyor, said support strip supports the product when said movable conveyor is moved from beneath one of said plurality of lanes.

21 The packaging machine of Claim 18, further comprising a spacing mechanism disposed at said second end of said moveable conveyer.

23. The packaging machine of Claim 21, wherein said spacing mechanism includes a side belt assembly.

24. The packaging machine of Claim 18, wherein said shifting assembly is adapted to move said lane guides from a first position to a second position, said first and second positions being spaced apart a distance substantially equal to a width of one of said plurality of lanes.

25. The packaging machine of Claim 18, further comprising a flex guide mounted to said movable conveyor, said flex guide being adapted to direct the product into said plurality of lanes.

26. The packaging machine of Claim 18, further comprising a sensor mounted adjacent to said plurality of lanes.

28. The packaging machine of Claim 18, further comprising a case feed assembly located beneath said plurality of lanes.

29. The packaging machine of Claim 28, wherein said case feed assembly is configured to position the case beneath said appropriate number of lane guides, the case being sized to receive the product delivered into said appropriate number of lanes.

30. The packaging machine of Claim 29, wherein said case feed assembly includes a feed conveyor, said feed conveyor is adapted to deliver the case beneath said plurality of lanes.

31 The packaging machine of Claim 30, wherein said feed conveyor is adapted to remove the case from beneath said plurality of lanes.

32. The packaging machine of Claim 18, further comprising a controller.